

### REMARKS

Claims 1-7, 14-18, and 34-37 are pending in the application and are at issue.

Claims 1-7, 14-18, and 34-37 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The examiner contends that the terms "poly(ethylene glycol 30)" and "polyoxyethylene 15" are indefinite and are tradenames. Applicants traverse this rejection.

The terms recited in claim 1 are not trade-names, but are the chemical names of two copolymers, the identity of which is readily understood and determined by persons skilled in the art.

The first claimed polymer is a copolymer of poly(ethylene glycol 30) and polyhydroxy stearate. The term "poly(ethylene glycol 30)" or PEG30 is fully understood by persons skilled in the art to mean a polyethylene glycol containing an average of 30 moles of ethylene glycol. See attached Exhibit A, which shows that a standard nomenclature for polyethylene glycol is PEG or polyethylene glycol followed by a number indicating the average number of moles of ethylene glycol present in the molecule. Also see Exhibit B, page 1244, under "PEG-30 dipolyhydroxy-stearate," which includes other names for the polymer. The polymer is available commercially as ARLACEL P135, from Uniqema Americas.

Similarly, the term "polyoxyethylene 15" is a polyethylene glycol containing an average of 15 moles of ethylene oxide. In the art, the terms "polyoxyethylene" and "polyethylene glycol" are synonymous structurally. See Exhibit B, page 338, and Exhibit C under the definitions of PEG and polyethylene glycol.

The examiner is further directed to page 15, lines 3-9, of the specification, which provide additional information concerning the claimed copolymers.

In summary, it is submitted that the metes and bounds of the polymers recited in the claims are readily discernable to persons skilled in the art. The nomenclature used in claim 1 is not a tradename, brand name, or trivial name, but the actual chemical name of the claimed copolymers.

Therefore, it is submitted that the present claims fully comply with U.S.C. §112, second paragraph, and that the rejection should be withdrawn.


It is further submitted that all claims are in a form and scope for allowance. An early and favorable action on the merits is respectfully requested.

Should the examiner wish to discuss the foregoing, or any matter of form in an effort to advance this application toward allowance, the examiner is urged to telephone the undersigned at the indicated number.

Respectfully submitted,

**MARSHALL, GERSTEIN & BORUN LLP**

By



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# ***CTFA International Cosmetic Ingredient Dictionary***

***Fourth Edition***

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**PEA EXTRACT**

CAS Number: 90082-41-0

Definition: Pea Extract is an extract of *Pisum sativum*.**Other Names:**Extract of Pea  
*Pisum Sativum* Extract**Materials Containing:**Hydroplastidine *Pisum* (Vevy)  
Lipoplastidine *Pisum* (Vevy)**PEANUTAMIDE MEA**

Definition: Peanutamide MEA is a mixture of ethanolamides of the fatty acids derived from Peanut Oil (q.v.). It conforms generally to the formula:

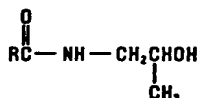


where RCO- represents the fatty acids derived from peanut oil.

Information Sources: CTFA D

**Other Names:**N-(2-Hydroxyethyl) Peanut Acid Amide  
Monoethanolamine Peanut Acid Amide  
Peanut Fatty Acid Amide, N-(2-Hydroxyethyl)-  
Peanut Fatty Acid Monoethanolamide**PEANUTAMIDE MIPA**

Definition: Peanutamide MIPA is a mixture of isopropanolamides of the fatty acids derived from Peanut Oil (q.v.). It conforms generally to the formula:



where RCO- represents the fatty acids derived from peanut oil.

**Other Names:**N-(2-Hydroxypropyl) Peanut Acid Amide  
Peanut Fatty Acid Amide, N-(2-Hydroxypropyl)-**PEANUT GLYCERIDES**

Definition: Peanut Glycerides is a mixture of mono-, di- and triglycerides derived from Peanut Oil (q.v.).

**Other Names:**Glycerides, Peanut Oil, Mono-, Di- and Tri-  
Oleicne (Gattefosse)**PEANUT OIL**

CAS Number: 8002-03-7

EINECS Number: 232-296-4

Definition: Peanut Oil is the refined fixed oil obtained from the seed kernels of one or more of the cultivated varieties of *Arachis hypogaea*.

Information Sources: ARG, AUS, BEL, BP, BPC, BRA, 21CFR175.105, 21CFR176.200, 21CFR176.210, 21CFR177.2800, 21CFR182.70, CTFA S, CZE, DA, DDR, EGY, FI, FIN, IND, ITA, JCID-II, MAR, MEX, MI-9(6858), NED, NF XVII, PF, PN, POL, POR, TSCA, USAN, USD, WHO, YUG

**Other Names:**Arachis Oil  
EmCon Peanut (Fanning)  
Oils, Peanut**Materials Containing:**Balm Mint Oil Infus. (Novarom)  
Carrot Oil, extra (Novarom)  
Lanosoluble A (Prod'Hyg)  
Tocopherol oil (Novarom)  
Vitamin A Acetate 1.0 million I.U./g (BASF)  
Vitamin A Acetate 1.5 million I.U./g (BASF)  
Vitamin A Palmitate 1.5 million I.U./g (BASF)  
Vitamin A Palmitate 1.0 million I.U./g (BASF)  
Vitamin A Palmitate w/Vitamin D3 (BASF)**PEANUT OIL PEG-6 ESTERS**

Definition: Peanut Oil PEG-6 Esters is a complex mixture obtained from the transesterification of Peanut Oil (q.v.) and PEG-6 (q.v.).

**Other Names:**

Labrafil M 1969 CS (Gattefosse)

**PEAR EXTRACT**

CAS Number: 90082-43-2

Definition: Pear Extract is an extract of the fruit of *Pyrus communis*.**Other Names:**Extract of Pear  
*Pyrus Communis* Extract**Materials Containing:**

Pear HS (Alban Muller)

**PECAN SHELL POWDER**Definition: Pecan Shell Powder is a powder made from finely ground shells of the pecan, *Carya illinoensis*.**PECTIN**

CAS Number: 9000-69-5

EINECS Number: 232-553-0

Definition: Pectin is a purified carbohydrate product obtained from the dilute acid extract of the inner portion of the rind of citrus fruits or from apple pomace. It consists chiefly of partially methoxylated polygalacturonic acids.

Information Sources: AUS, BRA, 21CFR135.140, 21CFR145, 21CFR150, 21CFR173.385, 21CFR184.1588, FCC, JCID-IV, MAR, MI-11(7009), OTC-I-OH, TSCA, USD, USP XXI

**Other Names:**Citrus Pectin  
Genu (Hercules)**PEG-4**

CAS Numbers: 25322-68-3 (generic); 112-60-7

EINECS Number: 203-989-9

**Empirical Formula:**

Definition: PEG-4 is the polymer of ethylene oxide that conforms generally to the formula:



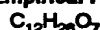
where n has an average value of 4.

Information Sources: 21CFR73.1, 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, CTFA S, FCC, JSCI, MAR, MI-11(7545), ROM, TSCA, USAN

**Other Names:**Carbowax PEG 200 (Union Carbide)  
Emkapol 200 (ICI Americas)  
Ethanol, 2,2'-[Oxybis(2,1-Ethanedioxy)]Bis-  
[111]  
Hetoxide PEG-200 (Heterene)  
Hodag PEG 200 (Hodag)  
ICI PEG 200 (ICI Americas)  
Lipoxol 200 MED (Huls America)  
Macol E-200 (PPG/Mazer)  
Macrogol 200  
2,2'-[Oxybis(2,1-Ethanedioxy)]Bisethanol|  
211  
Polyethylene Glycol 200  
Polyglycol E-200 (Dow Chemical)  
Polyoxyethylene (4)  
Unipeg-200 X (UPI)  
Upiwx 200 (UPI)**PEG-6**CAS Numbers: 25322-68-3 (generic);  
2615-15-8

EINECS Number: 220-045-1

The inclusion of any compound in the Dictionary does not indicate that use of that substance as a cosmetic ingredient complies with the laws and regulations governing such use in the United States or any other country.

**Empirical Formula:**

**Definition:** PEG-6 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 6.

**Information Sources:** BP, BPC, 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3570, 21CFR178.3910, CTFA S, CZE, FCC, JSCI, MAR, MI-11 (7545), NF XVII, PJ, ROM, TSCA, USAN, USD

**Other Names:**

Alkapol PEG 300 (Rhône-Poulenc)  
Carbowax PEG 300 (Union Carbide)  
Emkapol 300 (ICI Americas)  
Hetoxide PEG-300 (Heterene)  
Hexaethylene Glycol  
Hodag PEG 300 (Hodag)  
ICI PEG 300 (ICI Americas)  
Lipoxol 300 MED (Hüls America)  
Lutrol E300 (BASF)  
Macrogol 300  
3,6,9,12,15-Pentaoxaheptadecane-1,17-Diol  
Polyethylene Glycol 300  
Polyglycol E-300 (Dow Chemical)  
Polyoxyethylene (6)  
Upiwx 300 (UPI)

**Materials Containing:**

Arlenfil 4015 (Gattefosse)  
Calenfil 3646 (Gattefosse)  
Camofil 4064 (Gattefosse)  
Carbowax PEG 540 (Union Carbide)  
Hodag PEG 540 (Hodag)  
Hodag 150-S (Hodag)  
Lanobase S.E. (Lanaetex)  
LIPOPEG 15-S (Lipo)  
Lipoxol 550 MG MED (Hüls America)  
Macrogol 1500  
Pegospense 1500 DL (Lonza)  
Pegospense 1500 DO (Lonza)  
Pegospense 1500 MS (Lonza)  
Protamate 1500 DPS (Protameen)  
Swertiall (Ichimaru Pharcos)  
Tefose 63 (Gattefosse)  
Tefose 1500 (Gattefosse)  
Unipeg-1500 X (UPI)  
Uniwax 1450 (UPI)

**PEG-8**

**CAS Numbers:** 25322-68-3 (generic); 5117-19-1

**EINECS Number:** 225-856-4

**Empirical Formula:**

**Definition:** PEG-8 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 8.

**Information Sources:** BRA, 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, 21CFR181.22, 21CFR181.30, CTFA S, FCC, HUN, JSCI, MAR, MI-9 (7349), NF XVII, NFJ, PJ, PN, POL, ROM, TSCA, USAN, USD

**Other Names:**

Carbowax PEG 400 (Union Carbide)  
Emkapol 400 (ICI Americas)  
3,6,9,12,15,18,21-Heptaaxtricosane-1,23-diol  
Hodag PEG 400 (Hodag)  
ICI PEG 400 (ICI Americas)  
Lipoxol 400 MED (Hüls America)  
Lutrol E400 (BASF)  
Macol E-400 (PPG/Mazer)  
Macrogol 400  
Polyethylene Glycol 400  
Polyglycol E-400 (Dow Chemical)  
Polyoxyethylene (8)  
Unipeg-400 X (UPI)  
Upiwx 400 (UPI)

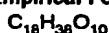
**Materials Containing:**

Afron 22 (Vevy)  
Carbossalina (Vevy)  
Crystallin Protein (Sederma)  
Hair Complex Aquosum (Kurt Richter)  
Kalixide Idrata (Vevy)  
Melibion (Vevy)  
Texapon SG (Henkel)

**PEG-9**

**CAS Numbers:** 25322-68-3 (generic); 3386-18-3

**EINECS Number:** 222-206-1

**Empirical Formula:**

**Definition:** PEG-9 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 9.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11 (7545), NF XVII, TSCA, USAN

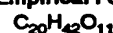
**Other Names:**

Alkapol PEG-400 (Rhône-Poulenc)  
3,6,9,12,15,18,21,24-Octaaxhexacosane-1,26-diol  
Polyethylene Glycol 450  
Polyoxyethylene (9)

**PEG-10**

**CAS Numbers:** 25322-68-3 (generic); 5579-66-8

**EINECS Number:** 226-962-3

**Empirical Formula:**

**Definition:** PEG-10 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 10.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11 (7545), NF XVII, TSCA

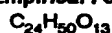
**Other Names:**

3,6,9,12,15,18,21,24,27-Nonaoxononacosane-1,29-diol  
Polyethylene Glycol 500  
Polyoxyethylene (10)

**PEG-12**

**CAS Numbers:** 25322-68-3 (generic); 6790-09-6

**EINECS Number:** 229-859-1

**Empirical Formula:**

**Definition:** PEG-12 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 12.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, CTFA S, FCC, JSCI, MI-9 (7349), NF XVII, ROM, TSCA, USAN

**Other Names:**

Carbowax PEG 600 (Union Carbide)  
Emkapol 600 (ICI Americas)  
Hodag PEG 600 (Hodag)  
ICI PEG 600 (ICI Americas)  
Lipoxol 600 MED (Hüls America)  
Macol E-600 (PPG/Mazer)  
Macrogol 600  
Polyethylene Glycol 600  
Polyglycol E-600 (Dow Chemical)  
Polyoxyethylene (12)  
3,6,9,12,15,18,21,24,27,30,33-Undecaaxpentatriacontane-1,35-Diol  
3,6,9,12,15,18,21,24,27,30,33-Undecaaxpentatriacontane-1,35-diol  
Unipeg-600 (UPI)  
Upiwx 600 (UPI)

The inclusion of any compound in the Dictionary does not indicate that use of that substance as a cosmetic ingredient complies with the laws and regulations governing such use in the United States or any other country.

**PEG-14****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-14 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 14.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11(7545), NF XVII, TSCA, USAN**Other Names:**Alkapol PEG-600 (Rhône-Poulenc)  
Polyethylene Glycol (14)  
Polyoxyethylene (14)**PEG-16****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-16 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 16.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11(7545), NF XVII, TSCA, USAN**Other Names:**ICI PEG 800 (ICI Americas)  
Lipoxol 800 MED (Hüls America)  
Polyethylene Glycol (16)  
Polyoxyethylene (16)**PEG-18****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-18 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 18.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11(7545), TSCA, USAN**Other Names:**Polyethylene Glycol (18)  
Polyoxyethylene (18)**PEG-20****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-20 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 20.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, CTFA S, FCC, JSCI, MI-9(7349), NF XVII, ROM, TSCA, USAN**Other Names:**Carbowax PEG 900 (Union Carbide)  
Carbowax PEG 1000 (Union Carbide)  
Hodag PEG 1000 (Hodag)  
ICI PEG 1000 (ICI Americas)  
Lipoxol 1000 MED (Hüls America)  
Macrogol 1000  
Polyglycol E-1000 (Dow Chemical)  
Polyglycol E-1450 (Dow Chemical)  
Polyoxyethylene (20)  
Unipeg-1000 X (UPI)  
Upiwx 1000 (UPI)**PEG-32****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-32 is the polymer of ethylene oxide that conforms generally to the formula:

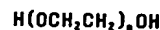
where n has an average value of 32.

**Information Sources:** BP, BPC, 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, CTFA S, CZE, FCC, HUN, JCID-II, MAR, MI-9(7349), NF XVII, TSCA, USAN, USD**Other Names:**Carbowax PEG 1450 (Union Carbide)  
Carbowax Polyethylene Glycol 1450 (Union Carbide)  
Hodag PEG 1450 (Hodag)  
ICI PEG 1500 (ICI Americas)  
Lipoxol 1550 MED (Hüls America)  
Lutrol E1500 (BASF)  
Macrogol 1540  
Polyethylene Glycol 1540  
Polyoxyethylene (32)  
Protachem 1450 NF (Protameen)  
Unipeg-1540 X (UPI)**Materials Containing:**Carbowax PEG 540 (Union Carbide)  
Hodag PEG 540 (Hodag)  
Hodag 150-S (Hodag)  
Lanobase S.E. (Lanaetex)  
LIPOPEG 15-S (Lipo)  
Lipoxol 550 MG MED (Hüls America)**Macrogol 1500**Pegospere 1500 DL (Lonza)  
Pegospere 1500 DO (Lonza)  
Pegospere 1500 MS (Lonza)  
Protamate 1500 DPS (Protameen)  
Swertiall (Ichimaru Pharcos)  
Tefose 63 (Gattefosse)  
Tefose 1500 (Gattefosse)  
Unipeg-1500 X (UPI)  
Uniwx 1450 (UPI)**PEG-40****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-40 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 40.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11(7545), NF XVII, ROM, TSCA, USAN**Other Names:**ICI PEG 2000 (ICI Americas)  
Lipoxol 2000 MED (Hüls America)  
Polyethylene Glycol 2000  
Polyoxyethylene (40)**PEG-55****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-55 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 55.

**Information Sources:** MI-11(7545), NF XVII, USAN**Other Names:**ICI PEG 3300 (ICI Americas)  
Polyethylene Glycol (55)  
Polyoxyethylene (55)**PEG-60****CAS Number:** 25322-68-3 (generic)**Definition:** PEG-60 is the polymer of ethylene oxide that conforms generally to the formula:

where n has an average value of 60.

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**Information Sources:** MI-11 (7545), NF XVII, USAN

**Other Names:**

Lipoxol 3000 MED (Hüls America)  
Polyethylene Glycol 3000  
Polyoxyethylene (60)

**PEG-75**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-75 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 75.

**Information Sources:** BP, BPC, BRA, 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, CTFA S, FCC, HUN, JSCI, MAR, MI-9(7349), NF XVII, NFJ, PJ, PN, POL, ROM, TSCA, USAN, USD

**Other Names:**

Carbowax PEG 3350 (Union Carbide)  
Emkapol 4000 (ICI Americas)  
Hodag PEG 3350 (Hodag)  
ICI PEG 4000 (ICI Americas)  
Lipoxol 4000 MED (Hüls America)  
Lutrol E4000 Prill (BASF)  
Macrogol 4000  
Pioze 40 (Nippon Oil & Fats)  
Polyethylene Glycol 4000  
Polyglycol E-3350 (Dow Chemical)  
Polyoxyethylene (75)  
Unipeg-4000 X (UPI)  
Upiwx 3350 (UPI)

**PEG-100**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-100 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 100.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11 (7545), NF XVII, USAN

**Other Names:**

Carbowax PEG 4600 (Union Carbide)  
Polyethylene Glycol (100)  
Polyoxyethylene (100)

**PEG-135**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-135 is the polymer of ethylene oxide that conforms to the formula:



where n has an average value of 135.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.105, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11 (7545), NF XVII, USAN

**Other Names:**

Polyethylene Glycol (135)  
Polyoxyethylene (135)

**PEG-150**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-150 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 150.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.300, 21CFR177.2420, 21CFR178.3750, 21CFR178.3910, CTFA S, FCC, JSCI, MAR, MI-9(7349), NF XVII, PJ, PN, ROM, TSCA, USAN

**Other Names:**

Carbowax PEG 8000 (Union Carbide)  
Emkapol 6000 (ICI Americas)  
Hodag PEG 8000 (Hodag)  
ICI PEG 6000 (ICI Americas)  
Lipoxol 6000 MED (Hüls America)  
Lutrol E 8000 Prill (BASF)  
Macrogol 6000  
Polyethylene Glycol 6000  
Polyglycol E-8000 (Dow Chemical)  
Polyoxyethylene (150)  
Unipeg-6000 X (UPI)  
Upiwx 8000 (UPI)

**PEG-180**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-180 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 180.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, MI-11 (7545), NF XVII, USAN

**Other Names:**

Polyethylene Glycol (180)  
Polyoxyethylene (180)

**PEG-200**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-200 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 200.

**Information Sources:** 21CFR172.210, 21CFR172.770, 21CFR172.820, 21CFR173.310, 21CFR173.340, 21CFR175.300, 21CFR178.3750, 21CFR178.3910, CTFA D, FCC, MI-11 (7545), NF XVII, TSCA, USAN

**Other Names:**

Polyethylene Glycol 9000  
Polyoxyethylene (200)

**PEG-240**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-240 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 240.

**Information Sources:** 21CFR172.770, 21CFR175.300, 21CFR178.3910, MI-11 (7545), NF XVII, USAN

**Other Names:**

Lipoxol 12000 (Hüls America)  
Polyethylene Glycol (240)  
Polyoxyethylene (240)

**PEG-350**

**CAS Number:** 25322-68-3 (generic)

**Definition:** PEG-350 is the polymer of ethylene oxide that conforms generally to the formula:



where n has an average value of 350.

**Information Sources:** 21CFR172.770, 21CFR173.310, 21CFR175.300, 21CFR178.3910, JSCI, MI-11 (7545), NF XVII, TSCA, USAN

**Other Names:**

Lipoxol 20000 (Hüls America)  
PEG Compound 20M (Union Carbide)

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# International Committee for the Abolition of Anti-Semitism

1971-1972  
1973

Volume 1  
1971-1972  
1973  
1974-1975

## International Cosmetic Ingredient Dictionary and Handbook

## PEG-150 Dioleate (Cont.)

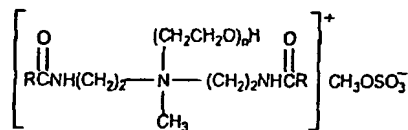
**Function:** Surfactant - Cleansing Agent

**Technical/Other Names:**  
Polyethylene Glycol 6000 Dioleate  
Polyoxyethylene (150) Dioleate

**Trade Names:**  
AEC PEG-150 Dioleate (A & E Connock)  
STEPAN PEG 6000 DO (Stepan)

## PEG-3 DIOLEOYLAMIDOETHYLMONIUM METHOSULFATE

**Definition:** PEG-3 Dioleoylamidoethylmonium Methosulfate is the quaternary ammonium salt that conforms to the formula:



where RCO- represents the oleoyl moiety and n has an average value of 3.

**Chemical Class:** Quaternary Ammonium Compounds

**Functions:** Antistatic Agent; Hair Conditioning Agent

**Reported Product Category:** Hair Dyes and Colors (All Types Requiring Caution Statements and Patch Tests)

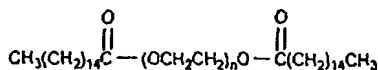
**Trade Name:**  
Incroquat HO-80PG (Croda, Inc.)

## PEG-3 DIPALMITATE

**CAS No.:** 32628-06-1 (Generic)

**JPN Translation:**  
ジバルミチン酸 PEG-3

**Definition:** PEG-3 Dipalmitate is the polyethylene glycol diester of palmitic acid that conforms generally to the formula:



where n has an average value of 3.

**Information Sources:** 21CFR175.300, JCIC, JCLS, JSQI, MI-13(7660), TSCA

**Chemical Class:** Alkoxyated Carboxylic Acids

**Function:** Surfactant - Emulsifying Agent

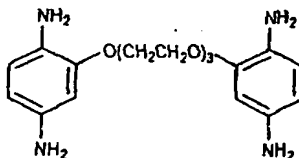
**Technical/Other Names:**  
Polyethylene Glycol (3) Dipalmitate  
Polyethylene Glycol 150 Dipalmitate  
Polyoxyethylene (3) Dipalmitate

**Trade Name:**  
AEC PEG-3 Dipalmitate (A & E Connock)

## PEG-3 2,2'-DI-p-PHENYLENEDIAMINE

**Empirical Formula:**  
C<sub>18</sub>H<sub>26</sub>N<sub>4</sub>O<sub>4</sub>

**Definition:** PEG-3 2,2'-Di-p-Phenylenediamine is the organic compound that conforms generally to the formula:



See "Regulatory and Ingredient Use Information," for Colorants in Volume 1, Introduction, Part A.

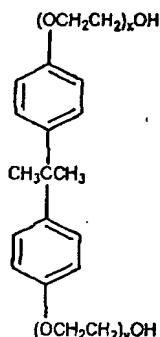
**Chemical Classes:** Amines; Color Additives - Hair; Ethers

**Function:** Hair Colorant

## PEG-13 DIPHENYLOL PROPANE

**CAS No.:** 9014-86-2

**Definition:** PEG-13 Diphenylol Propane is the organic compound that conforms generally to the formula:



where x+y has an average value 13.

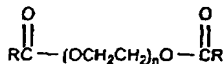
**Chemical Class:** Alkoxyated Alcohols

**Function:** Surfactant - Emulsifying Agent

**Technical/Other Names:**  
Polyethylene Glycol (13) Diphenylol Propane  
Polyoxyethylene (13) Diphenylol Propane

## PEG-30 DIPOLYHYDROXYSTEARATE

**Definition:** PEG-30 Dipolyhydroxystearate is the polyethylene glycol diester of Polyhydroxystearic Acid (q.v.) that conforms generally to the formula:



where RCO- represents the alkyl groups derived from Polyhydroxystearic Acid (q.v.) and n has an average value of 30.

**Chemical Classes:** Alkoxyated Carboxylic Acids; Esters

**Function:** Surfactant - Emulsifying Agent

**Technical/Other Names:**  
Polyethylene Glycol (30) Dipolyhydroxystearate  
Polyoxyethylene (30) Dipolyhydroxystearate

**Trade Name:**  
Arlacel P135 (Uniqema Americas)

## PEG-20 DIRICINOLEATE

**JPN Translation:**  
ジリシノレイン酸 PEG-20

**Definition:** PEG-20 Diricinoleate is the diester of Ricinoleic Acid (q.v.) and PEG-20 (q.v.).

**Information Source:** JCLS

**Chemical Class:** Esters

**Function:** Skin-Conditioning Agent - Miscellaneous

## PEG-2 DIROSINATE

**Definition:** PEG-2 Dirosinate is the polyethylene glycol diester of the acids derived from Rosin (q.v.). It conforms generally to the formula:



where RCO- represents the acids derived from Rosin (q.v.) and has an average value of 2.

**Chemical Class:** Alkoxyated Carboxylic Acids

**Functions:** Skin-Conditioning Agent - Occlusive; Viscosity Increasing Agent - Nonaqueous

**Technical/Other Names:**  
Polyethylene Glycol 100 Dirosinate  
Polyoxyethylene (2) Dirosinate

**Trade Name Mixture:**  
Recol T 3 (Granel Derivados)

## PEG-3 DIROSINATE

**CAS No.** 8050-25-7 **EINECS No.** 232-478-3

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Exhibit C

*Hawley's  
Condensed Chemical  
Dictionary*

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solidifying point -5 to +186-194, iodine number 125-1.4645 (40C), flash point temperature 883F

and other edible oils, hydrogenated; soaps; salad oil, mayonnaise.

ed form of peanut cake  
ion of oil from the seed.  
the shells, the oil meal  
between 39-45% crude  
basis. Typical analysis  
% crude protein, 5.3%  
gen-free extract, 6.2%  
ash, total digestible nu-

ingredient.

sulfate.

carbonate.

s pigment.

is pigment.

oxychloride, bismuth

ue of plants formed in  
ments (bogs and  
ice layers 3-10 ft thick  
of 85%. Before peat  
r fuel purposes it must  
content of 30-40%.  
susceptible to autoigni-  
st be such as to mini-  
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source of natural gas;  
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rgy content is said to  
barrels of petroleum.  
production of metha-  
nating. Experimental  
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of oil, ammonia, and  
pyproducts.

ween 4 and 8 millime-

d cylinder rotating on  
ning flint or porcelain

pebbles as the grinding medium. Its operation is similar to that of a ball mill. It is used for grinding and mixing of dry chemicals, pigments, food products, and the like. Pebble mills are usually lined with alumina, buhrstone, or similar material to protect the walls from wear.

pebulate. (propyl ethyl-n-butylthiocarbamate).

CAS: 1114-71-2.  $C_{10}H_{21}NOS$ .

Properties: Colorless liquid, bp 142C (20 mm), d 0.945, refr index 1.47, soluble in benzene, acetone, methanol, and xylene.

Hazard: Toxic by ingestion.

Use: Herbicide.

**Pechmann pyrazole synthesis.** Formation of pyrazoles from acetylenes and diazomethane. The analogous addition of diazoacetic esters to the triple bond yields pyrazolecarboxylic acid derivatives.

**pectic acid.** An acid derived from pectin by treating it with sodium hydroxide solution, washing with isopropyl alcohol, adding alcoholic hydrochloric acid, and finally washing again with isopropyl alcohol and drying.

Use: Acidulant in pharmaceuticals.

**pectin.** A high molecular weight hydrocolloidal substance (polyuronide) related to carbohydrates and found in varying proportions in fruits and plants. Pectin consists chiefly of partially methoxylated galacturonic acids joined in long chains.

Properties: White powder or syrupy concentration. Commonest characteristic of pectins is their property of jelling at room temperature, after addition of sugar to fruit juices in the preparation of jams or jellies. Soluble in water, insoluble in organic solvents.

Derivation: By dilute-acid extraction of the inner portion of the rind of citrus fruits, or of fruit pomaces, usually apple.

Method of purification: Following decolorization, the extracts are concentrated by evaporation or the pectins precipitated with alcohol or acetone. Grade: Pure (NF) containing not less than 6.7% methoxy groups and not less than 74% galacturonic acid; 150-, 200-, 250-jelly grades, containing various diluents.

Use: Jellies, foods, cosmetics, drugs, protective colloids, emulsifying agents, dehydrating agents. See also gel.

**pectinase.** An enzyme present in most plants. It catalyzes the hydrolysis of pectin to sugar and galacturonic acid.

Use: Biochemical research, juice and jelly industry.

**"Pectinol."**<sup>223</sup> TM for formulated enzyme concentrate of fungal origin with varying degrees of pectinase activity which hydrolyze pectic substances.

Use: Clarification of wines and fruit juices and processing of jellies.

pectin sugar. See l-arabinose.

PEG. Abbreviation for polyethylene glycol.

**"Pegospense."**<sup>273</sup> TM for a series of polyglycol esters of fatty acids.

Use: Plasticizers, softeners, wetting agents, detergents, lubricants, emulsifying agents.

**pelargonic acid.** (n-nonoic acid; n-nonanoic acid; n-nonylic acid). CAS: 112-05-0.

$CH_3(CH_2)_7COOH$ .

Properties: Colorless or yellowish oil with slight odor, d 0.9052 (20/4C), mp 12.5C, bp 255.6C, refr index 1.4322 (20C). Soluble in alcohol, ether, and organic solvents; almost insoluble in water. Combustible.

Derivation: By the oxidation of nonyl alcohol or nonyl aldehyde, the oxidation of oleic acid, especially by ozone.

Grade: Technical, 99%.

Hazard: Strong skin irritant.

Use: Organic synthesis, lacquers, plastics, production of hydrotropic salts, pharmaceuticals, synthetic flavors and odors, flotation agent, esters for turbojet lubricants, vinyl plasticizer, gasoline additive.

See also nonic acid.

pelargonic alcohol. See nonyl alcohol.

pelargonic aldehyde. See nonanal.

pelargonyl chloride. (n-nonanoyl chloride).

$CH_3(CH_2)_7COCl$ .

Properties: Bp 80-85C (5 mm), min assay 97%, soluble in hydrocarbons and ethers, decomposes in water.

Hazard: Skin irritant.

Use: Intermediate in organic synthesis.

pelargonyl peroxide.  $(C_9H_{17}COO)_2$ .

Properties: Water-white liquid with a faint odor, d 0.926 min (25/25C), mp 10C, refr index 1.443 min (25C), insoluble in water and glycerol, soluble in alcohol and hydrocarbons.

Hazard: Dangerous fire risk in contact with organic materials. Strong skin irritant and oxidizing agent.

Use: Initiator of polymerization reactions.

**"Pelaspan."**<sup>233</sup> TM for a series of expandable polystyrenes in bead or pellet form. Each bead

abrasion-resistant, resistant to water and most chemicals, d 0.92. Slightly soluble in turpentine, petroleum naphtha, xylene, and toluene at room temperature; soluble in xylene, toluene, trichloroethylene, turpentine, and mineral oils at 82.2°C; practically insoluble in water; slightly soluble in methyl acetate, acetone, and ethanol up to the boiling points of these solvents. Available as emulsified and nonemulsified forms. Combustible.

**Use:** Mold-release agent for rubber and plastics, paper and container coatings, liquid polishes and textile finishing agents.

**polyethylene glycol.** (PEG; polyoxyethylene; polyglycol; polyether glycol). CAS: 25322-68-3. Any of several condensation polymers of ethylene glycol with the general formula  $\text{HOCH}_2(\text{CH}_2\text{OCH}_2)_n\text{CH}_2\text{OH}$  or  $\text{H}(\text{OCH}_2\text{CH}_2)_n\text{OH}$ . Average molecular weights range from 200 to 6000. Properties vary with molecular weight.

**Properties:** Clear, colorless, odorless, viscous liquids to waxy solids. Soluble or miscible with water and for the most part with alcohol and other organic solvents, heat-stable, inert to many chemical agents, do not hydrolyze or deteriorate, have low vapor pressure. Combustible.

**Derivation:** By condensation of ethylene glycol or of ethylene oxide and water.

**Use:** Chemical intermediates (lower molecular weight varieties), plasticizers, softeners and humectants, ointments, polishes, paper coating, mold lubricants, bases for cosmetics and pharmaceuticals, solvents, binders, metal and rubber processing, permissible additives to foods and animal feed, laboratory reagent.

See also "Carbowax."

**polyethylene glycol chloride.**

$\text{H}(\text{OCH}_2\text{CH}_2)_n\text{Cl}$ . Any of a group of polymers, usually colorless liquids with very low vapor pressure at room temperature. Molecular weights from 100 to 600. Miscible with water, d for a low molecular weight polymer is 1.18 (20°C), for a high molecular weight polymer 1.14 (10°C). The former sets to a glass at -90°C, the latter sets to a wax-like solid at 20°C. Combustible.

**Use:** Solvents for cleaning, extracting, and dewaxing.

**polyethylene glycol ester.** A mono- or di-ester resulting from the interaction of an organic acid with one or both of the glycol ends of the polyethylene glycol polymer. These are also called polyoxyethylene esters, polyglycol esters, or by a coined generic name.

**polyethylene imine.** CAS: 26913-06-4.

$(\text{CH}_2\text{CH}_2\text{NH})_x$ . A synthetic polymer which

is a highly viscous, hygroscopic liquid when anhydrous; completely miscible with water and lower alcohols; insoluble in benzene. Reactive toward cellulose. Combustible.

**Use:** Adhesive and anchoring agent for paper and cellophane, dewatering agent and wet strength improver in paper manufacture, fixative, levelling agent in textile fibers, antiblocking agent on plastic films, flocculating agent, ion exchange resins, complexing agents, disinfectant for textiles, skins, photographic chemistry, absorbent for carbon dioxide, water purification, polyelectrolyte.

**polyethylene oxide.** A plastic reported to be dimensionally stable at high and low temperatures and designed as a substitute for phenolics.

**polyethylene oxide sorbitan fatty acid esters.**

See polysorbate.

**polyethylene terephthalate.** CAS: 25038-59-9.

$(\text{C}_{10}\text{H}_8\text{O}_4)_x$ . A thermoplastic polyester formed from ethylene glycol by direct esterification or by catalyzed ester exchange between ethylene glycol and dimethyl terephthalate. Offered as oriented film or fiber. It melts at 265°C, tenacity is 2.2-4 g/denier (staple) and up to 9.0 g/denier as continuous filament; d 1.38. It has good electrical resistance and low moisture absorption. Resists combustion and is self-extinguishing.

**Use:** Blended with cotton, for wash-and-wear fabrics; blended with wool, for worsteds and suitings; packaging films, recording tapes, soft-drink bottles.

**polyethylene thiuram sulfide.**

**Derivation:** Oxidation of diammonium ethylene bisdithiocarbamate with calcium hypochlorite. **Grade:** 50% vegetable powder, 95% technical powder.

**Use:** Fungicide.

**polyformaldehyde.** See p-formaldehyde.

**polyfurfuryl alcohol.** See furfuryl alcohol.

**polyformaldehyde resin.** See acetal resin.

"Poly-G."<sup>TM</sup> TM for a series of polyethylene glycols, polypropylene glycols, and polyoxypropylene adducts of glycerol. G200, 300, 400, and 600 are liquid polyethylene glycols; G1000, 1500, GB-1530, and BG-2000 are waxy polyethylene glycols. The number indicates the molecular weight. G420P, 1020P, 2020P are propylene oxide condensation polymers of propylene glycol. G1030PG, 3030PG, 4030PG are propylene oxide condensation polymers of glycerol.

"Polygard."<sup>TM</sup> TM for a mixture of alkylated aryl phosphites.

**Properties:** Liquid; clear amber, d 0.99; soluble in acetone, alcohol, benzene, carbon tetrachlo-

ride, solvent naphtha, water, but can hydrolyze. **Use:** Nondiscoloring fixative.

**polyglycerol.** One of a series of glycerol with it to triacontaglycerol, possibly 166, a liquid with 4 OH groups at 65.5°C; (b) he with 8 OH groups (c) decaglycerol m groups, viscosity 3. **Properties:** Viscous, water, alcohol, and humectants much higher n point. Combustible. **Derivation:** Glycerol catalyst (200-275°C). **Use:** Surface-active agents, adhesives, lubricants, used for both edible and nonedible.

**polyglycerol ester.** Complete esters of saturated fatty acids with a variety of glycerols ranging from mono- to polyglycerol. Prepared by a transesterification reaction. Some examples of rate, semisolid, d 1.1. **Use:** Monooleate, viscous, d 1.1. **Grade:** 50% vegetable powder, 95% technical powder.

**Examples of (b):** t cosity 322 cp (75.5°C), cosity 30.1 cp (75.5°C). **Use:** Lubricants, plasticizers, gelling agents, adhesives, crosslinking agents, dispersants, pharmaceuticals, cosmetics.

**polyglycol.** See polyethylene glycol.

**polyglycol amine H-1.**  $\text{HO}[\text{C}_2\text{H}_4\text{O}]_n\text{C}_3\text{H}_6\text{N}$ . **Properties:** Colorless, odorless, bp 14.5°C, solubility in water, flash p 295F (100°F).

**polyglycol distearate.** (See polyglycol stearate). CAS: 5

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